REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed November 13, 2008. The Examiner is thanked for the thorough examination of the present application. Upon entry of this response, claims 1-20 are pending in the present application. Applicant respectfully requests consideration of the following remarks contained herein. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

I.   Response to Claim Rejections Under 35 U.S.C. § 103

The USPTO has the burden under section 103 to establish a *prima facie* case of obviousness according to the factual inquiries expressed in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). The four factual inquires, also expressed in MPEP §2141, are as follows:

(A)   Determining the scope and contents of the prior art;

(B)   Ascertaining the differences between the prior art and the claims in issue;

(C)   Resolving the level of ordinary skill in the pertinent art; and

(D)   Evaluating evidence of secondary considerations.

For a proper rejection of the claim under 35 U.S.C. §103, the cited combination of references must disclose, teach, or suggest all elements / features of the claim at issue. See, e.g., *In re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988) and *In re Keller*, 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981). Claims 1-20 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Applicant's admitted prior art in view of *Hayter et al.* (U.S. Pat. No. 7,320,022, hereinafter "*Hayter*"). For at least the reasons set forth below, Applicant traverses the rejections set forth.

A. Independent Claim 1

Applicant respectfully submits that independent claim 1 patently defines over

Applicant's admitted prior art in view of *Hayter* for at least the reason that the

combination fails to disclose, teach, or suggest the features emphasized below in

claim 1.

Claim 1 recites:

> 1. An apparatus for improving the management of received data packets of a host system that comprises a plurality of data buffers and a plurality of descriptors that corresponds to a subset of the plurality of data buffers to manage the received data packets, the apparatus comprising:
> a receiver for receiving a data packet;
> a first storage unit for storing the data packet from the receiver;
> a counter for counting a number of descriptors in a first state to produce a count value;
> a second storage unit for storing a threshold value; and
> ***a comparator for comparing the count value with the threshold value and producing a comparison signal;***
> ***wherein the apparatus issues a first event to the host system according to the comparison signal.***

(Emphasis added). The Office Action alleges that Applicant's admitted prior art

discloses the features emphasized above in claim 1. In particular, the Office Action

asserts that par. 0006, lines 1-14 and par. 0008, lines 2-4 disclose these features.

Applicant respectfully disagrees. Par. 0008, lines 1-4 states that "A prior art solution

counts the number of times an event occurs and notifies the host system via a signal

when the number of times an event occurs has reached a certain value." The

Examiner apparently equates this to the comparator recited in claim 1. Claim 1,

however, recites "a comparator for comparing the count value with the threshold value

and producing a comparison signal." Nowhere does Applicant's admitted prior art

disclose a comparator for <u>producing a comparison signal</u> based on comparing the count value with the threshold value. Moreover, the "count value" here refers to a number of descriptors <u>in a first state</u>. Applicant's admitted prior art fails to disclose this feature.

Even assuming, for the sake of argument, that Applicant's admitted prior art discloses the comparator recited in claim 1, Applicant's admitted prior art fails to disclose, teach, or suggest the limitation, "wherein the apparatus <u>issues a first event</u> to the host system <u>according to the comparison signal</u>." The Office Action alleges that par. 0008, lines 2-4 discloses the step of "*issuing an ok signal or an error signal to the host system based on the comparison signal.*" (Office Action, page 4). Applicant objects as the Examiner appears to be reading certain portions of the background section out of context. Nowhere, in fact, does Applicant's admitted prior art specify that an ok signal or an error signal is issued to the host system <u>based on the comparison signal</u>. Par. 0006 states the following:

> [I]f the NIC issues an ok signal, then the host system will post the data packet to the protocol stack and associate the descriptor corresponding to the data buffer used to store the data packet with a different data buffer that is in a free state. If the NIC issues an error signal, then the host system will clear the data buffer used to receive the transferred data packet and renew the buffer length of the descriptor corresponding to the data buffer.

Based on what class of signals (ok packets and error packets) is issued, the host system performs a certain action. Applicant's admitted prior art, however, does not specify that an ok signal or an error signal is issued to the host system based on the comparison signal. Furthermore, the secondary *Hayter* reference fails to address the deficiencies set forth above.

Accordingly, Applicant respectfully submits that independent claim 1 patently

defines over Applicant's admitted prior art in view of *Hayter* for at least the reason that

the combination fails to disclose, teach, or suggest the highlighted features in claim 1

above.   Furthermore, Applicant submits that dependent claims 2-10 are allowable for at

least the reason that these claims depend from an allowable independent claim.   *See,*

e.g., In re Fine, 837 F. 2d 1071 (Fed. Cir. 1988).

B. Independent Claim 11

Applicant respectfully submits that independent claim 11 patently defines over

Applicant's admitted prior art in view of *Hayter* for at least the reason that the

combination fails to disclose, teach, or suggest the features emphasized below in

claim 11.

Claim 11 recites:

11. A method for improving the management of received
data packets of a host system that comprises a plurality of data
buffers and a plurality of descriptors that corresponds to a subset of
the data buffers to manage the received data packets, the method
comprising:
receiving a data packet;
transferring the data packet into at least one of the data
buffers;
counting an amount of the descriptors in a first state;
comparing the amount with a threshold value to generator a
comparison signal; and
*generating a first event to the host system according to
the comparison signal to prevent all the descriptors from
being in the first state*.

(Emphasis added). The Office Action applies the same rationale used in rejecting claim

1 to reject claim 11.   In particular, the Office Acton alleges that Applicant's admitted

prior art discloses the step of "*issuing an ok signal or an error signal to the host system*

based on the comparison signal." (Emphasis added; Office Action, page 4). As set forth above, Applicant objects as the Examiner appears to be reading certain portions of the background section out of context. Nowhere does Applicant's admitted prior art disclose this. As discussed above, Applicant's admitted prior art teaches that based on what class of signals (ok packets and error packets) is issued, the host system performs a certain action. Applicant's admitted prior art, however, does not specify that an ok signal or an error signal is issued to the host system based on the comparison signal.

As an independent basis for patentability, Applicant's admitted prior art fails to disclose generating a first event to the host system according to the comparison signal *to prevent* all the descriptors from being in the first state. Applicant notes that the Office Action fails to address this limitation recited in claim 11 (but not in claim 1). Applicant further submits that the secondary *Hayter* reference fails to address the deficiencies set forth above.

Accordingly, Applicant respectfully submits that independent claim 11 patently defines over Applicant's admitted prior art in view of *Hayter* for at least the reason that the combination fails to disclose, teach, or suggest the highlighted features in claim 11 above. Furthermore, Applicant submits that dependent claims 12-17 are allowable for at least the reason that these claims depend from an allowable independent claim. *Id*.

C. Independent Claim 18

Applicant respectfully submits that independent claim 18 patently defines over

Applicant's admitted prior art in view of *Hayter* for at least the reason that the

combination fails to disclose, teach, or suggest the features emphasized below in

claim 18.

Claim 18 recites:

> 18. A method for improving the management of data packets
> received from a network by a host system that comprises a plurality
> of data buffers and that utilizes a plurality of descriptors that
> corresponds to a subset of the plurality of data buffers to manage
> the data packets received from the network, the method
> comprising:
>> receiving a data packet from the network;
>> transferring the data packet into at least one of the data
> buffers;
>> ***counting a number of descriptors that will have their
> state changed when the data packet is transferred***;
>> ***calculating a count value according to the number of
> descriptors that will have had their state changed by the data
> packet being transferred***; and
>> comparing the count value with a threshold value, and
> triggering a first event to the host system when the count value
> reaches the threshold value;
>> wherein the first event notifies the host system to clear the
> data buffers corresponding to the descriptors.

(Emphasis added).   In rejecting claim 18, the Office Action alleges that Applicant's

admitted prior art teaches each of the features emphasized above.   Applicant

respectfully disagrees.   As an initial matter, in alleging that Applicant's admitted prior

art discloses the steps of counting a number of descriptors and calculating a count

value above, Applicant notes that the Examiner improperly paraphrases the claim

language in claim 18 to support the rejection.   For example, claim 18 recites the step of

"counting a number of descriptors that will have their state changed when the data packet is transferred." The Office Action instead asserts the following:

> "*the method comprising:*
>
> *counting a number of times an event occurs (see paragraph 8 lines 1-2, counting the number of times an event occurs);*"

(Emphasis added; Office Action, page 5). Applicant objects as claim <u>clearly does not</u> recite the step of "counting a number of times an event occurs." As another example, claim 18 further recites the step of "calculating a count value according to the number of descriptors that will have had their state changed by the data packet being transferred." The Office Action asserts the following:

> "*the method comprising:*
>
> *calculating a count value according to the number of times an event occurs (see paragraph 8 lines 1-2, counting the number of times an event occurs);*"

(Emphasis added; Office Action, page 5). As seen above, the Office Action also improperly paraphrases this step in claim 18. For at least this reason, Applicant respectfully submits that the rejection of claim 18 is deficient and should be withdrawn.

Turning now to the rejections, Applicant submits that Applicant's admitted prior art fails to disclose, teach, or suggest the features emphasized above. Even construing the claim language according to its broadest, reasonable interpretation, Applicant's admitted prior art still fails to disclose "counting a number of descriptors that will have their state changed when the data packet is transferred." With reference to par. 0008, lines 1-2 in Applicant's admitted prior art (the text passage cited in the Office Action), counting the number of times an event occurs and notifying the host system via a signal when the number of times an event occurs has reached a certain value <u>is not</u>

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equivalent to this feature. Furthermore, Applicant's admitted prior art fails to disclose "calculating a count value according to the number of descriptors that will have had their state changed by the data packet being transferred." Again, counting the number of times an event occurs and notifying the host system via a signal when the number of times an event occurs has reached a certain value <u>is not</u> equivalent to this feature. Applicant notes that the <u>same feature</u> (in par. 8, lines 1-2) is cited in alleging that Applicant's admitted prior art discloses these <u>two steps</u>. Finally, Applicant submits that the secondary *Hayter* reference fails to address the deficiencies set forth above.

Accordingly, Applicant respectfully submits that independent claim 18 patently defines over Applicant's admitted prior art in view of *Hayter* for at least the reason that the combination fails to disclose, teach, or suggest the highlighted features in claim 18 above. Furthermore, Applicant submits that dependent claims 19-20 are allowable for at least the reason that these claims depend from an allowable independent claim. *See, e.g., In re Fine,* 837 F. 2d 1071 (Fed. Cir. 1988).

II.   Additional Remarks

As a separate and independent basis for the patentability of all claims, Applicant submits that the combination of Applicant's admitted prior art and *Hayter* is improper and therefore does not render the claims obvious. In relying on *Hayter* to disclose a counter, the Office Action combines Applicant's admitted prior art with *Hayter* to reject the claims on the solely expressed basis that "*it would have been obvious … to implement a counter for counting a number of descriptors in a first state as taught by Hayter et al. into the apparatus of APA in order to keep track of available descriptors.*" (*See, e.g.,* Office Action, page 5.)

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Applicant respectfully submits that this rationale is both incomplete and improper

in view of the established standards for rejections under 35 U.S.C. § 103.   In this

regard, the MPEP section 2141 states:

> The Supreme Court in KSR reaffirmed the familiar framework for determining obviousness as set forth in Graham v. John Deere Co. (383 U.S. 1, 148 USPQ 459 (1966))... As reiterated by the Supreme Court in KSR, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries. The factual inquiries enunciated by the Court are as follows:
> (A) Ascertaining the differences between the claimed invention and the prior art; and
> (B) Ascertaining the differences between the claimed invention and the prior art; and
> (C) Resolving the level of ordinary skill in the pertinent art.

In addition:

> When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to:
> (A) The claimed invention must be considered as a whole;
> (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;
> (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention and
> (D) Reasonable expectation of success is the standard with which obviousness is determined.

Hodosh v. Block Drug Co., Inc., 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986).

As reflected above, the foregoing approach to obviousness determinations was

recently confirmed by the United Stated Supreme Court decision in KSR

INTERNATIONAL CO. V. TELEFLEX INC. ET AL. 550 U.S. 1, 82 USPQ2d 1385,

1395-97 (2007), where the Court stated:

In Graham v. John Deere Co. of Kansas City, 383 U. S. 1 (1966), the Court set out a framework for applying the statutory language of §103, language itself based on the logic of the earlier decision in Hotchkiss v. Greenwood, 11 How. 248 (1851), and its progeny. See 383 U. S., at 15–17. The analysis is objective:

"Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." Id., at 17–18.

As now expressly embodied in MPEP 2143, "[t]he *key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious*. The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit." (Emphasis added, MPEP 2143). "Objective evidence relevant to the issue of obviousness *must* be evaluated by Office personnel." (MPEP 2141). "The key to supporting any rejection under 35 U.S.C. 103 is the *clear articulation of the reason(s)* why the claimed invention would have been obvious. The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 *should be made explicit*. The Court quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that '[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'" (MPEP 2141).

Simply stated, the Office Action has failed to at least (1) ascertain the differences between and prior art and the claims in issue; and (2) resolve the level of ordinary skill in the art. Furthermore, the alleged rationale for combining the references is merely an

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improper, conclusory statement that embodies clear and improper hindsight rationale.

For at least these additional reasons, Applicant submits that the rejections of all claims

are improper and should be withdrawn.

CONCLUSION

Applicant respectfully submits that all pending claims are in condition for

allowance.   Favorable reconsideration and allowance of the present application and all

pending claims are hereby courteously requested.   If, in the opinion of the Examiner, a

telephone conference would expedite the examination of this matter, the Examiner is

invited to call the undersigned attorney at (770) 933-9500.

No fee is believed to be due in connection with this response to Office Action.   If,

however, any fee is believed to be due, you are hereby authorized to charge any such

fee to deposit account No. 20-0778.

Respectfully submitted,

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